

Mitigation Monitoring and Reporting Program
for the
Upper Truckee River and Marsh Restoration Project



SCH# 2007032099

Lead Agencies:



California Department of
General Services



California
Tahoe Conservancy



Tahoe Regional
Planning Agency
Lake Tahoe Environmental
Improvement Program



U.S. Department of Interior
Bureau of Reclamation

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MITIGATION MONITORING AND REPORTING PROGRAM FOR THE UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

In February 2013, the California Tahoe Conservancy (Conservancy) as lead agency under the California Environmental Quality Act (CEQA), the U.S. Department of the Interior Bureau of Reclamation (Reclamation) as federal lead agency under the National Environmental Policy Act (NEPA), and the Tahoe Resources Planning Agency (TRPA) as lead agency in accordance with the Compact and Code of Ordinances released a joint environmental impact report, environmental impact statement, and environmental impact statement (EIR/EIS/EIS) for the Upper Truckee River and Marsh Restoration Project to provide the public and responsible and trustee agencies with information about the potential environmental effects associated with the construction and operation of the proposed project.

The Preferred Alternative includes the most beneficial and cost-effective elements of the five alternatives evaluated in the draft EIR/EIS/EIS. This alternative is also the most feasible, the most highly responsive to public comments, and the most resilient to the potential impacts of climate change. It includes the following components:

- ▶ Alternative 3 restoration elements which involve construction of a small pilot channel that would reconnect the Upper Truckee River to the middle of the marsh to attain ecosystem and water quality improvements. The abandoned sections of existing river channel would be largely filled to create restored meadow and expanded wetlands.
- ▶ Alternative 5 for recreation elements on the east side of the Upper Truckee Marsh that would maintain the current dispersed recreation experience. No new recreation infrastructure would be installed and public access would be afforded through the current informal user-created trail system. The Conservancy would continue to manage and reduce the impacts of recreational use and new trails while providing on-site signage.
- ▶ Alternative 3 recreation elements for the west side of the Upper Truckee Marsh would upgrade the recreation infrastructure through construction of ADA-accessible trails to Lake Tahoe and formalized viewpoints that provide interpretive and site-information signage. The developed recreation experience would be maintained consistent with natural resource values.
- ▶ Previously proposed only under Alternatives 1 and 2, the Preferred Alternative would also include the restoration of sand ridges (“dunes”) at Cove East Beach that were graded and leveled as part of the Tahoe Keys development and the removal of fill at the east end of Barton Beach to create a restored lagoon.

The final EIR/EIS/EIS concludes that implementation of the project would generate significant adverse environmental impacts. For most potential impacts, the EIR/EIS/EIS prescribes mitigation capable of reducing these impacts to less-than-significant levels.

Section 15097 of the State CEQA Guidelines requires that a public agency adopt a mitigation monitoring or reporting program upon approval of a mitigated negative declaration or environmental impact report. This requirement is meant to ensure that the lead agency enforces the implementation of the mitigation measures by the applicant or in this case itself when it is implementing its own project. This Mitigation Monitoring and Reporting Program (MMRP) fulfills the Conservancy’s obligation as the CEQA lead agency to ensure the timely implementation of the mitigation measures identified in the EIR/EIS/EIS.

As the NEPA lead, Reclamation will complete a Record of Decision (ROD) on the project following certification by the Conservancy. The ROD will state the Federal action that will be implemented and will discuss all factors leading to the decision, including any monitoring and enforcement program established to ensure that identified

mitigation measures are accomplished. For Reclamation purposes, environmental “mitigation measures” presented in this MMRP are considered “environmental commitments.”

TRPA is the primary permitting agency. The project would be required to comply with TRPA’s Regional Plan and Code of Ordinances to receive permits for construction. Under Chapter 4 of the TRPA Code of Ordinances, findings must be made in writing regarding all significant environmental impacts and their associated mitigation measures, with substantial evidence provided in the record of review before final project approval. This MMRP will be used to evaluate if mitigation measures are sufficient for project permitting.

Permits and approvals issued by responsible agencies, including TRPA will be considered after further design development of the project. They will be scheduled according to the procedures of the approving agencies.

The Preferred Alternative includes the Environmental Commitments identified in Table 1 below. Environmental Commitments are standard project components necessary to comply with existing federal statutes, state statutes, executive orders, and regulations.

These environmental protection features are typical elements of permits and agency approvals, and therefore they were considered and applied as essential components of the project in the draft EIR/EIS/EIS. The Environmental Commitments were incorporated into the proposed project and considered before the application of thresholds of significance and determination of environmental impacts. These Environmental Commitments assisted the Conservancy, Reclamation, and TRPA in determining the scope of the draft EIR/EIS/EIS, developing program components and objectives, identifying the range of alternatives, defining potential environmental impacts and the significance of those impacts, and identifying appropriate mitigation measures.

In some instances, these ECs are insufficient to fully avoid potential impacts; therefore, mitigation measures are proposed when feasible. Mitigation measures are tied to a specific action that either required more detail than standard regulatory requirements to make a conclusion, or went beyond those standard practices.

To document fulfillment of these commitments, the Conservancy had included Table 1 which contains a summary of required permits and environmental commitments that have been incorporated into the project. These Environmental Commitments will be adopted on approval of the environmental document and have been included in the Mitigation Monitoring and Reporting Program to maintain a record of completion.

Table 1 contains the following information:

Environmental Commitments: Provides the text of the environmental commitments, each of which has been adopted by the Conservancy and incorporated into the project.

Timing/Schedule: Lists the time frame in which the environmental commitment must take place.

Responsibility: Identifies the entity responsible for implementing the environmental commitment.

Completion of Environmental Commitments: The Conservancy is responsible for reporting on implementation of the environmental commitments. The “Action” column is to be used by the Conservancy to describe the action(s) taken to complete implementation. The “Date Completed” column is to be used by the Conservancy to indicate when implementation of the environmental commitment has been completed. The Conservancy, at its discretion, may delegate implementation responsibility or portions thereof to qualified consultants or contractors.

**Table 1
Environmental Commitment Tracking Table**

| Environmental Commitments of the Upper Truckee River and Marsh Restoration Project | Implementation | | Completion of Implementation | |
|--|--|--|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| <p>Environmental Commitment 1: Construction-Related Emissions of ROG, NO_x, and PM₁₀. TRPA and the El Dorado Air Quality Management District regulate construction-related emissions of ROG, NO_x, and PM₁₀. As noted in the EIR, these construction-related emissions are temporary, and will take place for a limited construction season and for a limited number of years. Consequently, will also be less than significant because they are temporary. The project includes:</p> <ul style="list-style-type: none"> ▶ TRPA permits and approvals, requiring compliance with TRPA codes and procedures with respect to BMPs (TRPA Code Section 60.4), project grading (TRPA Code Section 33.3), excavation, and construction-related emissions-generating activities (TRPA Code Section 65.1, “Air Quality Control”). ▶ El Dorado County permits and approvals, requiring compliance with county laws and procedures with respect to BMPs, project grading excavation, and construction-related emissions-generating activities. The Conservancy and their construction contractor will comply with EDCAQMD Rule 202, Visible Emissions; Rule 205, Nuisance; Rule 223, Fugitive Dust–General Requirements; and Rule 223-1, Fugitive Dust–Construction, Bulk Material Handling, Blasting, Other Earthmoving Activities, and Carryout and Trackout Prevention. In addition, the contractor will implement the following fugitive dust control measures: <ul style="list-style-type: none"> • Apply dust suppression measures in a sufficient quantity and frequency to maintain a stabilized surface and prevent visible dust emissions from exceeding 100 feet in length in any direction. Apply water to at least 80 percent of the surface areas of all open storage piles on a daily basis when there is evidence of wind-driven fugitive dust. • Install control measures immediately adjacent to the paved surface to prevent track-out from exiting vehicles. ▶ Restriction on activities disturbing the soil to between October 15 and May 1 of each year, unless approval has been granted by TRPA and the Lahontan RWQCB. All construction sites must be winterized before October 15 of each construction year in accordance with the provisions of Section 33.3.1.D of the TRPA Code of Ordinances and the National Pollutant Discharge Elimination System (NPDES) permit. ▶ Requirements for dust control measures for any grading activity creating substantial quantities of dust. Dust control measures must be approved by TRPA before groundbreaking and will comply with the provisions of Section 33.3.3 of the TRPA Code of Ordinances. | During construction | Conservancy and its primary contractors for construction | | |
| <p>Environmental Commitment 2: Prepare and Implement a Cultural Resources Protection Plan. The U.S. Army Corps of Engineers and TRPA require protection of historic and cultural resources per Section 106 of the National Historic Preservation Act (NHPA) and TRPA ordinances (TRPA Code Section 29.2 and Section 64.8). The Project includes a cultural resource protection plan that will be prepared and implemented before and during construction. Measures will include, but are not limited to assuring final design placement and orientation of recreation infrastructure will incorporate visual screening or barriers as appropriate to minimize visibility and access which could otherwise lead to damage or destruction of prehistoric site CA-Eld-26; installing barriers or fencing during construction to protect identified sites, including CA-Eld-26; jobsite education on protocol to identify potential uncovered resources and response (stop work) protocol; and presence of a qualified cultural resource specialist to oversee grading activities that are in the vicinity of eligible resources, including initial grading activities within the vicinity of the bluff and CA-Eld-26. The Conservancy will ensure that the requirements of NHPA Section 106 are incorporated into the cultural resources protection plan. Before project-related ground disturbance begins, the Conservancy will train all construction personnel regarding the possibility of uncovering buried cultural resources. The Conservancy will retain a qualified cultural resources specialist to educate personnel as to how to identify prehistoric and historic-era archaeological remains. If unusual amounts of stone, bone, or shell or significant quantities of historic-era artifacts such as glass, ceramic, metal, or building remains are uncovered during construction activities, work in the vicinity of the specific construction site at which the suspected resources have been uncovered will be suspended, and the Conservancy will be contacted immediately. In addition, Reclamation or other federal lead agency for projects that require federal discretionary actions under NEPA will be contacted immediately so that the Section 106 Post-Review Discovery process, which includes consultation with the State Historic Preservation Officer (SHPO) and Indian tribes, proceeds as required by federal regulation (36 CFR 800.13). At that time, the Conservancy will retain a qualified professional archaeologist, who will conduct a field investigation of the specific site and recommend measures deemed necessary to protect or recover any cultural resources concluded by the archaeologist to represent significant or potentially significant resources as defined by CEQA, NEPA, and TRPA. These measures may include but will not necessarily be limited to avoidance, archival research, subsurface testing, and excavation of contiguous block units. The Conservancy will implement the measures deemed necessary by the archaeologist before construction resumes within the area of the find. The purpose of this oversight will be to ensure that cultural resources potentially uncovered during ground-disturbing activities are identified, evaluated for significance, and treated in accordance with their possible (NRHP) and California Register of Historical Resources (CRHR) status. Potential treatment methods for significant and potentially significant resources may include but will not be limited to taking no action (i.e., resources determined not to be significant), avoiding the resource by changing construction methods or project design, and implementing a program of testing and data recovery, in accordance with all applicable Federal and State requirements.</p> | From project design through construction | Conservancy and its primary contractors for engineering and construction | | |

| Environmental Commitments of the Upper Truckee River and Marsh Restoration Project | Implementation | | Completion of Implementation | |
|---|---|--|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| <p>Environmental Commitment 3: Stop Work Within an Appropriate Radius Around the Discovered Human Remains, Notify the El Dorado County Coroner and the Most Likely Descendants, and Treat Remains in Accordance With State and Federal Law. In accordance with Section 7050.5(b) of the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the contractor and/or the Conservancy will immediately halt potentially damaging excavation in the area of the burial and notify the El Dorado County Coroner and a professional archaeologist to determine the nature of the remains. In addition, Reclamation or other federal lead agencies that require federal discretionary actions under NEPA will be contacted immediately so that the Section 106 Post-Review Discovery process proceeds as required by federal regulation (36 CFR 800.13). The coroner will examine all discoveries of human remains within 48 hours of receiving notice of the discovery. If the coroner determines that the remains are those of a Native American, he or she will contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code, Section 7050[c]). Following the coroner's findings, the Conservancy, an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) will determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code (PRC) Section 5097.9 Notification of and consultation with appropriate parties as identified through the Section 106 process would also be required if the project has federal funding or a federal permitting requirement.</p> <p>Upon the discovery of Native American remains, the Conservancy will ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD will have 48 hours after being granted access to the site to complete a site inspection and make recommendations. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. PRC Section 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following are site protection measures that the Conservancy will employ:</p> <ul style="list-style-type: none"> ▶ Record the site with the NAHC or the appropriate Information Center of the California Historical Resources Information System. ▶ Utilize an open-space or conservation zoning designation or easement. ▶ Record a document with El Dorado County. <p>The Conservancy or its authorized representative will rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The Conservancy or its authorized representative may also reinter the remains in a location not subject to further disturbance if it rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to the Conservancy.</p> | During construction | Conservancy and its primary contractors for construction | | |
| <p>Environmental Commitment 4: Prepare and Implement an Invasive Species Management Plan. TRPA and the California Department of Fish and Wildlife (CDFW) require invasive species management to address existing and potential terrestrial and aquatic invasive species. In addition, Reclamation or other federal lead agencies that require federal discretionary actions under NEPA will comply with Executive Order 13112, which directs all Federal agencies to prevent the introduction and control the spread of invasive nonnative species in an environmentally sound manner to minimize ecological impacts. The project includes an Invasive Species Management Plan that will specifically address Eurasian watermilfoil as it is known to be present in the study area and is a species of particular concern. The plan will be divided into two sections: one addressing terrestrial species and the other addressing aquatic. The aquatic portion will be consistent with the State of California's Aquatic Species Management Plan (CDFG 2008), and will be completed, reviewed, and approved by CDFW prior to initiation of construction. The plan will address how the project will address invasive species currently in the project area in addition to how the project will prevent introducing new species.</p> <p>The plan will include the following measures to address both invasive aquatic and terrestrial species:</p> <ul style="list-style-type: none"> ▶ A qualified biologist with experience in the Tahoe Basin will conduct a preconstruction survey to assess current populations of invasive plants in the project area. Invasive species presence will be documented, and an action plan in the context of the project will be developed to remove them prior to construction and/or prevent their spread due to construction activities. Control measures may include hand removal or other mechanical control. Herbicides are not allowed within Stream Environment Zones (SEZs). ▶ All equipment entering the study area from areas infested by invasive plants or areas of unknown infestation status will be cleaned of all attached soil or plant parts before being allowed into the study area. All motorized and nonmotorized equipment used for in-channel work will be thoroughly cleaned prior to use on the project site and then be cleaned before leaving the site. This includes waders, nets, seines, water quality monitoring equipment, boats, kayaks, life jackets, and construction vehicles. ▶ To restrict the import of seed or other materials potentially containing invasive plants, the project will use on-site sources of seed and materials to the extent practicable. Seed, soil amendment, and erosion control materials that need to be imported to the study area will be certified weed-free or will be obtained from a site documented as uninfested by invasive plants. ▶ With regard to aquatic invasive species, habitat within construction sites with aquatic invasive species will be isolated prior to in-channel work. A qualified biologist(s) with expertise in Tahoe Basin aquatic plant and animal species will be present during construction and will supervise the removal | Prior to, during, and post construction | Conservancy and its primary contractors for construction | | |

| Environmental Commitments of the Upper Truckee River and Marsh Restoration Project | Implementation | | Completion of Implementation | |
|--|-----------------------------------|---|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| <p>and disposal of nonnative invasive species from the project area. All biologists working on this program will be qualified to conduct nonnative aquatic species removal/disposal in a manner that avoids and/or minimizes all potential risks to native aquatic species, particularly any special status species potentially encountered. Biologists will be on site when work sites are isolated and/or dewatered, if necessary, in order to capture, handle, and safely remove or dispose of any nonnative aquatic invasive species encountered. This program will be closely coordinated with the Aquatic Species Rescue and Relocation Program, described below as Environmental Commitment 7.</p> <p>After project construction, the project site will be annually monitored for occurrence of invasive plants for four years. If invasive plants are documented during monitoring, they will be treated and eradicated to prevent further spread.</p> | | | | |
| <p>Environmental Commitment 5: Prepare and Implement Effective Construction Site Management Plans. Several agencies (e.g., TRPA, the Lahontan RWQCB, the U.S. Army Corps of Engineers [USACE], CDFW, U.S. Fish and Wildlife Service [USFWS], and CSLT) regulate construction risks to water quality and vegetation degradation. The project includes several site management plans to comply with these existing regulations, including but not limited to a grading and erosion control plan, a dewatering and channel seasoning plan, a diversion plan, a winterization plan, and a monitoring and construction management plan. The plans require design features that:</p> <ul style="list-style-type: none"> ▶ Restrict the area and duration of construction disturbance to the absolute minimum necessary to accomplish work. Protect existing vegetation outside construction area and salvage and reuse riparian vegetation where it needs to be disturbed. ▶ Design, install, and maintain temporary BMPs to protect disturbed areas and minimize soil erosion, prevent surface runoff interaction with disturbed surfaces, and limit the potential for release of sediment to surface water bodies for storm events up to the 20-year precipitation event. ▶ Design, install, and maintain internally draining construction area(s) within the study area to prevent discharge of untreated stormwater into surface water bodies. Anticipate runoff from adjacent lands and reroute it around the construction zone. ▶ Salvage topsoil to be reused on-site during project-related grading. ▶ Provide winterization that isolates and protects disturbed areas from high streamflow on the Upper Truckee River and Trout Creek (up to the 50-year event). ▶ Secure a source of transportation and a location for deposition and/or storage of all excavated and imported materials at the project site and minimize use of nonlocal materials and importation of materials from off-site. ▶ Protect stockpiled and transported materials or debris from wind or water erosion. Store soil and other loose material at least 100 feet from the active channel during the construction season. Designate staging areas and haul routes in existing developed or disturbed areas where feasible, and where not feasible, in the least sensitive natural areas feasible. ▶ Flag and/or fence boundaries of staging areas, haul routes, and construction sites. ▶ Restrict the placement of materials or equipment to designated staging areas or construction sites and prohibit the use of vehicles off of roads and haul routes. ▶ Minimize overwinter storage of materials, vehicles, equipment, or debris within the 100-year floodplain. ▶ Provide site-specific and reachwide dewatering/diversion plans that indicate the scheduling approach and/or maximum diverted flows to minimize risks from summer thunderstorms, specific diversion/bypass/ dewatering methods and equipment, defined work areas and diversion locations, the types and locations of temporary BMPs for the diversions and reintroduction points, measures and options for treating turbid water before release back to the channel, and stated water quality performance standards. ▶ Salvage and reuse plant materials to the extent practicable. ▶ Avoid fertilizer application to revegetated areas. ▶ Provide flushing flows before activation of new and reconnected river channel sections based on a “channel seasoning” plan that indicates the water source(s); volumes and duration required; phased placement of clean, washed gravels; and the measures and options for treating potentially turbid water. ▶ Require all contractors to develop Spill Prevention Plans (SPPs) and Storm Water Pollution Prevention Plans (SWPPPs). These plans will contain BMPs to be implemented to minimize the risk of sedimentation, turbidity, and hazardous material spills. Applicable BMPs may include permanent and temporary erosion control measures, including the use of straw bales, mulch or wattles, silt fences, filter fabric, spill remediation material such as absorbent booms, proper staging of fuel, out of channel equipment maintenance, and ultimately seeding and revegetating. Preventing contaminants from entering the river during construction and operation of the project will protect water quality and the aquatic habitat. <p>Maintain the effectiveness of temporary erosion control, stormwater facilities, and flood flow protections throughout the construction area. Monitor the status and effectiveness of temporary erosion control, stormwater facilities, and flood flow protections throughout the construction area, including each of the internally draining zones that could separately discharge to various surface water bodies. Monitor turbidity upstream of the Upper Truckee River and Trout Creek, and where feasible, downstream of the construction zone. Monitoring will be conducted by qualified personnel on a regular basis during</p> | Prior to and through construction | Conservancy and its primary contractors for engineering design and construction | | |

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| summer construction and on an event basis when runoff equals or exceeds the BMP design standards. Document failures and/or threats of BMP failures, and identify remedial measures implementation. Repair BMP failures within 24 hours of documentation. | | | | |
| Environmental Commitment 6: Obtain and Comply with Federal, State, Regional, and Local Permits. Federal, state, and local permits, as described in the other ECs in this table, require that the project include various environmental protection features. The project includes all necessary permits and the standard requirements to comply with the permits, as described more specifically in the other ECs in this table. The anticipated compliance, consultation, and coordination are described further in Chapter 5 of the Draft EIR/EIS/EIS. | Prior to and during construction | Conservancy and its primary contractors for construction | | |
| Environmental Commitment 7: Prepare and Implement an Aquatic Species Rescue and Relocation Plan. TRPA Code Section 79, "Fish Resources," and CDFW regulations protect aquatic organisms from construction-related effects. The project includes an Aquatic Species Rescue and Relocation Plan that will protect native fish or desired sport (trout) and native mussels from impacts associated with construction of the project. The objective of the rescue and relocation effort is to reduce harm and avoid potential mortality of important aquatic species, especially sensitive fish species and mussels, which may be present within the project area. The plan will be completed, reviewed, and approved by both CDFW and USFWS (for Lahontan cutthroat trout) prior to initiation of construction. Aquatic habitat within work areas will be isolated (using block nets, silt curtains, or coffer dams) prior to in-channel work. A qualified biologist with expertise in Tahoe Basin aquatic species, including the collection, handling, and relocating of fish and freshwater mussels, habitat relationships, and biological monitoring of Tahoe Basin fish species will supervise the fish and mussel rescue and relocation program for the project. All biologists working on the fish rescue and recovery program will be qualified to conduct fish and mussel collections in a manner that minimizes all potential risks to collected animals, particularly any special status species potentially encountered. Aquatic organisms isolated within the work area(s) will be removed by hand, seine netting, or, if necessary, electrofishing. Partial dewatering of the site will facilitate removal of aquatic species, but dewatering should not expose or strand individuals to be rescued, and water temperature and dissolved oxygen levels should be monitored to maintain levels supporting the most sensitive species. Should western pearlshell mussels be found in the site, the mussels shall be removed prior to fish rescues to minimize injury from foot traffic or electrofishing. Mussels can be located and removed by hand in wadeable streams; snorkeling and hand removal may be needed in deeper water. If electrofishing is necessary, it will be performed by qualified biologists and conducted according to established guidelines provided by CDFW and USFWS. Biologists will be on site when work sites are isolated and/or dewatered, in order to capture, handle, and safely relocate sensitive fish species (i.e., Lahontan cutthroat trout and western pearlshell mussels). Appropriate rescue methods should consider both general (low conductive water) and site-specific conditions (substrate, bed morphology). All captured native fish and mussels will be relocated, as soon as possible, to another Upper Truckee River site that has been preapproved by CDFW and USFWS and/or USFS biologists, and in which suitable habitat conditions are present. All captured invasive fishes (e.g., bluegill, bass, and catfish) or aquatic invasive plants will be disposed of, consistent with the approved Environmental Commitment 4, "Prepare and Implement an Invasive Species Management Plan," described above. | Prior to and during construction | Conservancy | | |
| Environmental Commitment 8: Prepare a Final Geotechnical Engineering Report. TRPA requires preparation of grading plans which are will be developed based on the geotechnical report information to support project designs and construction activities. Section 33.3, "Grading Standards," of the TRPA Code of Ordinances regulates excavation, filling, and clearing to avoid adverse effects related to exposed soils, unstable earthworks, or groundwater interference. Section 33.3 specifically addresses seasonal limitations, winterization techniques, discharge prohibitions, dust control, disposal of materials, standards for cuts and fills, and excavation limitations. Section 33.4, "Special Information Reports and Plans," regulates the need for special investigations, reports, and plans determined to be necessary by TRPA to protect against adverse effects from grading, including potential effects on slope stability, groundwater or antiquities. The project includes a final geotechnical engineering report for the project that will address and make recommendations on the following as necessary: <ul style="list-style-type: none"> ▶ site preparation; ▶ appropriate sources and types of fill; ▶ potential need for soil amendments; ▶ access roads, pavement, and asphalt areas; ▶ shallow groundwater table; and ▶ soil and slope stability. In addition to the recommendations for the conditions listed above, the geotechnical investigation will include subsurface testing of soil and groundwater conditions for proposed project elements and will determine appropriate bulkhead and levee and bridge foundation designs that are consistent with CSLT code requirements. The shorezone is regulated by the TRPA Code, Chapters 54 and 55. As a result, all projects which fall within this area a referred to the TRPA for review. The CSLT review will be limited to providing input into the TRPA process and processing the project through the city permit process. (Ord. 903. Code 1997 § 5-29) As described in section 7.20.070 Exemptions of the CSLT Code unless in conflict with provisions of adopted general and/or specific plans, stream restoration or alteration projects conducted under valid regional, state or federal permits, e.g., stream alteration permits, water quality certifications, etc. may be done without | From project design through construction | Conservancy and its primary contractors for engineering design and construction | | |

| Environmental Commitments of the Upper Truckee River and Marsh Restoration Project | Implementation | | Completion of Implementation | |
|--|----------------------------------|--|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| obtaining a CSLT grading permit. Exemption from the requirement of a grading permit shall not be construed as permission to violate any provision of code requirements (Ord. 1000 § 1. Code 1997 § 36-7). All recommendations contained in the final geotechnical engineering report will be implemented by the Conservancy. Special recommendations contained in the geotechnical engineering report will be noted on the grading plans and implemented as appropriate before construction begins. Design and construction of all phases of the project will be in accordance with current CSLT code requirements at the time of construction. | | | | |
| <p>Environmental Commitment 9: Develop and Implement a Construction Management Program. The project includes a construction management program that will inform contractors and subcontractors of:</p> <ul style="list-style-type: none"> ▶ work hours, ▶ modes and locations of transportation and parking for construction workers, ▶ location of overhead and underground utilities, ▶ worker health and safety, ▶ truck routes, ▶ stockpiling and staging procedures, ▶ public access routes, ▶ the terms and conditions of all project permits and approvals, and ▶ the health and safety plan (HASP) information described below. <p>The project includes a HASP, which will be complied with throughout project implementation because construction personnel shall be made familiar with the contents of the plan before the start of construction activities. A copy of the plan shall be posted in the trailer used by the on-site construction superintendent. The HASP:</p> <ul style="list-style-type: none"> ▶ clearly notifies all workers of the potential to encounter hazardous materials during demolition and construction activities; ▶ identifies proper handling and disposal procedures for contaminants expected to be on-site as well as maps and phone numbers for local hospitals and other emergency contacts; ▶ requires that stored hazardous materials present in the study area be removed and disposed at appropriately permitted locations, as appropriate; ▶ describes fire prevention and response methods, including fire precaution, prevention, and suppression methods that are consistent with the policies and standards in South Lake Tahoe; ▶ includes a requirement that all construction equipment be equipped with spark arrestors; and ▶ includes construction notification procedures for CSLT police, public works, and fire department and schools within one-quarter mile before construction activities. <p>As required by California Public Resources Code Section 21151.4, the Conservancy shall provide written notification of the project to the Lake Tahoe Unified School District at least 30 days before certification of the EIR/EIS/EIS and shall consult with the school district regarding proper handling and disposal methods associated with substances subject to California Health and Safety Code Section 25532. Notices would also be distributed to neighboring property owners, local agencies, and public works, police, and fire departments, and the Lake Tahoe Unified School District.</p> | Prior to and during construction | Conservancy and its primary contractors for construction | | |
| <p>Environmental Commitment 10: Establish and Implement a Management Agreement with the El Dorado County Vector Control District. The project includes a management agreement with the El Dorado County Vector Control District (EDCVCD) to adequately control mosquito populations in the study area. As a performance criterion for the management agreement, the terms and conditions of the agreement will be designed to ensure that EDCVCD can maintain mosquito abundance at or below preproject levels. The agreement will include, but not be limited to, the following:</p> <ul style="list-style-type: none"> ▶ measures that ensure necessary access for monitoring and control measures; ▶ EDCVCD review of project plans and provision of recommendations for management of mosquito populations; and ▶ applicable best management practices from the California Department of Public Health's <i>Best Management Practices for Mosquito Control on California State Properties</i> (CDPH 2012), including <ul style="list-style-type: none"> • procedures for coordinating Conservancy and EDCVCD management activities, and • providing public information for visitors and the community regarding control measures being implemented, the risk of transmission of mosquito-borne disease, and personal protective measures. | Prior to and during construction | Conservancy | | |

| Environmental Commitments of the Upper Truckee River and Marsh Restoration Project | Implementation | | Completion of Implementation | |
|---|--|---|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| <p>Environmental Commitment 11: Incorporate Effective Permanent Stormwater Best Management Practices. TRPA (TRPA Code Section 25, “Best Management Practices Requirements”) and Lahontan RWQCB regulations (Clean Water Act Section 402) require that the final design of all recreation features with impervious or partially pervious surfaces will incorporate effective permanent BMPs for the protection of water quality. The project includes design features that will conform to applicable ordinances and standard conditions established by TRPA and the Lahontan RWQCB. At a minimum, the stormwater design will:</p> <ul style="list-style-type: none"> ▶ minimize the area of disturbance and coverage for all permanent features; ▶ maximize the use of porous media (e.g., porous pavement, decomposed granite fill) for trail surfaces; ▶ optimize trail slopes for proper drainage; ▶ provide for at-the-source infiltration of roof or other cover runoff; and ▶ provide for collection of runoff from impervious pavements and direct the runoff through oil/water separator(s) and advance treatment prior to discharge to Stream Environment Zones (SEZs). | From project design through construction | Conservancy and its primary contractors for engineering design and construction | | |
| <p>Environmental Commitment 12: Prepare and Implement Traffic Control Plans. To ensure consistency with CSLT Code 26-16 and state safety orders, rules, and regulations of the Division of Industrial Safety including §1598. Traffic Control for Public Streets and Highways, the project includes traffic control plans for construction activities that may encroach on CSLT and California State road rights-of-way. The traffic control plans will follow California Department of Transportation’s (Caltrans) Standard Plans, Standard Special Provisions, and Non-Standard Special Provisions for Temporary Traffic Control Systems and will be signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, a flag person to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles. During project construction, access to existing land uses will be maintained at all times, with detours used as necessary during road closures. Traffic control plans will be submitted to the CSLT Public Works Department for review and approval before construction of project phases whose implementation may cause encroachment on CSLT or California State road rights-of-way. The Traffic Control Plan will address safety conflicts between construction traffic and of local traffic, pedestrians, and bicyclists. The plan will include advance public advisories, construction-period signage, flag personnel, and other special traffic-control actions as necessary. Specific measures contained in the plan include the following.</p> <ul style="list-style-type: none"> ▶ Distribute or mail flyers to residents in the nearby Al Tahoe, Highlands Woods, and Tahoe Keys subdivisions advising about upcoming project traffic prior to the initiation of construction. ▶ Place advisory signs along construction routes in advance of construction to alert traffic, pedestrian, and bicyclists about the upcoming construction traffic activity. ▶ Install construction area signage on designated haul routes to inform the public of the presence of trucks. ▶ Provide flag personnel at when truck activity is heavy (i.e., more than ten trucks per hour). ▶ Provide information to all truck drivers identifying haul routes, speed limits, location of flaggers, and any other pertinent public safety information. ▶ Monitor truck and traffic conditions to identify traffic congestion, safety concerns regarding truck, vehicle, and pedestrian and bicycle conflicts and adjust management approach as needed. | From project design through construction | Conservancy and its primary contractors for engineering design and construction | | |
| <p>Environmental Commitment 13: Prepare and Implement a Public Outreach Plan. The project includes a Public Outreach Plan (POP) to inform the general public and partnering agencies, such as the CSLT, El Dorado County Vector Control, and El Dorado County Animal Control, of construction-related activities within the Project Area. Further, in consultation with the construction contractor, every effort will be made to maintain access to and within the Study Area, including trail access to Lake Tahoe, insofar as the public’s health and safety can be assured. There may be periods of time when it is deemed unsafe for the public to be within the study area and/or on trails to the lake during certain construction activities. These periods of restricted access are alternative and construction season dependent.</p> <p>The POP will include strategies to inform the general public and partnering agencies of access restrictions and their anticipated timelines, alternate locations for passive recreation activities, and site access information. Communication of this information may be through signage at access points, messages posted to the Conservancy website, and Public Service Announcements and news articles in the local and regional newspapers, online and in print.</p> | Prior to and through construction | Conservancy and its primary contractors for construction | | |
| <p>Environmental Commitment 14: Prepare and Implement a Waterway Traffic Control Plan for Alternatives That Affect the Sailing Lagoon and/or all accessible reaches of the Upper Truckee River within the Upper Truckee River and Marsh Restoration Project Area. The project includes a waterway traffic control plan to ensure safe and efficient vessel navigation during construction at the junction of the Sailing Lagoon and the adjacent channel of the Tahoe Keys Marina and within all accessible reaches of the Upper Truckee River within the project area. The plan will include vessel (motorized and unmotorized) traffic control measures to minimize congestion and navigation hazards. Construction areas in the waterway will be barricaded or guarded by readily visible barriers, or other effective means to warn boaters of their presence and restrict access. Warning devices and signage will be consistent with the California Uniform State Marking System and effective during nondaylight hours and periods of dense fog.</p> | Prior to and through construction | Conservancy | | |

| Environmental Commitments of the Upper Truckee River and Marsh Restoration Project | Implementation | | Completion of Implementation | |
|--|-----------------|----------------|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| The Conservancy will maintain safe boat access to public launch and docking facilities, businesses, and residences of the Tahoe Keys Marina and will minimize the partial closure of the waterway. Where temporary channel closure is necessary, a temporary channel closure plan shall be developed. The waterway closure plan shall include procedures for notification of the temporary closure to the United States Coast Guard, boating organizations, Tahoe Keys Marina, boat/kayak rental businesses within the area, and all other effective means of notifying boaters. | | | | |

Notes: BMP = best management practice; CEQA = California Environmental Quality Act; Conservancy = California Tahoe Conservancy; NEPA = National Environmental Policy Act; NOX = oxides of nitrogen; PM10 = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ROG = reactive organic gases; RWQCB = Regional Water Quality Control Board; TRPA = Tahoe Regional Planning Agency

Source: Data compiled by AECOM in 2015

CEQA and TRPA’s Compact (to a lesser extent) requires the adoption of all feasible mitigation measures to reduce significant effects on the environment. NEPA does not require mitigation measures to be adopted for all impacts; however, feasible mitigation implemented to the fullest extent possible and wherever practicable is encouraged. Table 2 includes mitigation measures to be adopted as part of the MMRP requirement meant to ensure that the lead agency enforces the implementation of the mitigation measures by the applicant or in this case itself when it is implementing its own project.

Table 2 contains the following information:

Resource Topic/Impact and Mitigation Number: Lists the mitigation measures by number for each resource topic, as designated in the EIR/EIS/EIS.

Mitigation Measure: Provides the text of the mitigation measures, each of which has been adopted by the California Tahoe Conservancy and incorporated into the project.

Timing/Schedule: Lists the time frame in which the mitigation must take place.

Responsibility: Identifies the entity responsible for implementing the mitigation measure.

Completion of Implementation: The Conservancy is responsible for reporting on implementation of the mitigation measures. The “Action” column is to be used by the Conservancy to describe the action(s) taken to complete implementation. The “Date Completed” column is to be used by the Conservancy to indicate when implementation of the mitigation measure has been completed. The Conservancy, at its discretion, may delegate implementation responsibility or portions thereof to qualified consultants or contractors.

**Table 2
Mitigation Measure Tracking Table**

| Mitigation Measure | Implementation | | Completion of Implementation | |
|--|--------------------------------|--|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| 3.4 Biological Resources: Vegetation and Wildlife | | | | |
| <p>Mitigation Measure 3.4-3: Conduct Protocol-Level Preconstruction Surveys and Avoid or Mitigate Impacts on Tahoe Yellow Cress Plants.</p> <p>To avoid or mitigate potential adverse effects on Tahoe yellow cress (TYC) plants (stems) resulting from construction activities, the following actions will be implemented:</p> <p>(A) A qualified botanical monitor familiar with the vegetation of the Tahoe Basin and identification of TYC will conduct a focused preconstruction survey for TYC in all beach habitat where construction-related ground disturbance could occur during that year. Surveys will be conducted between June 15 and September 30, when TYC is clearly identifiable, and will follow CDFG's <i>Protocols for Surveying and Evaluating Impacts to Special Status Plant Populations and Natural Communities</i> (CDFG 2009). Surveys will be completed for each year that construction activities could occur in beach habitat. If no TYC stems are found during the survey, the results of the survey will be documented in a letter report to the Conservancy and TYC Adaptive Management Working Group (AMWG) that will become part of the project environmental record, and no further actions will be required.</p> <p>(B) If TYC stems are documented during the survey in areas potentially disturbed by construction activities, they will be clearly identified in the field, and if feasible, protected from impacts associated with construction activities. Protective measures will include flagging and fencing of known stem locations and avoidance. If feasible, no construction-related activities will be allowed in areas fenced for avoidance, and construction personnel will be briefed about the presence of the stems and the need to avoid effects on the stems. If all TYC stems are avoided, no further actions will be required.</p> <p>(C) If avoidance of all TYC plants is not feasible, the Conservancy, in coordination with the TYC AMWG, will delineate and fence a mitigation area within the study area, excavate and translocate potentially affected stems, plant additional nursery-grown TYC plants, and monitor and adaptively manage the mitigation area, as described below. The mitigation area will extend from the inland edge of suitable habitat to the location on the edge of Lake Tahoe under the lowest possible lake elevation. If deemed necessary during monitoring, the Conservancy will either relocate or enlarge the mitigation area to achieve mitigation goals.</p> <p>All potentially affected stems will be excavated and translocated to the mitigation area. Translocation will follow, as closely as possible, protocols that have been shown to be effective and described by Stanton and Pavlik (2009), and all translocated stems will be marked and/or mapped to facilitate monitoring. Translocation will be limited to no more than 10 percent of the suitable habitat within the project area. If project activities would impact more than 10 percent of the suitable habitat, then design or construction techniques will be adjusted to ensure no more than 10 percent of the suitable habitat would be affected by translocation.</p> <p>Additional outplanting of container-grown nursery TYC plants to the mitigation area will also occur. Outplanting will occur at a rate of two plants for every one transplanted stem, for a total mitigation rate of 3:1, for combined translocated stems and outplanted container-grown plants. Outplanting of container-grown plants will follow, as closely as possible, protocols that have been shown to be effective as described by Stanton and Pavlik (2009), and all outplanted plants will be marked and/or mapped to facilitate monitoring.</p> <p>Tahoe yellow cress stem translocation and outplanting of container-grown plants will be followed by active monitoring and adaptive management for the remainder of the growing season in which translocation and outplanting occurs, and the following two growing seasons. Monitoring and adaptive management will include the following actions:</p> <p>(1) For the remainder of the growing season in which stem translocation and outplanting or container-grown plants occurs, a qualified botanical monitor familiar with the identification of TYC shall inspect each translocated or outplanted stem at least once per month and record phenology (i.e., life cycle stage) and condition. The Conservancy will consult with the AMWG concerning appropriate measures if significant mortality or vandalism is observed. Additional outplanting will depend on the timing of the observed mortality and the level of the lake.</p> <p>(2) For the two growing seasons following the season in which stem translocation and container-grown plant outplanting occurred, success of mitigation efforts will be evaluated based on the ratio of TYC stems occurring within the mitigation area. Immediately following translocation and outplanting activities, a qualified botanical monitor shall conduct a complete inventory of TYC stems in the mitigation area.</p> <p>During each of the two growing seasons following the season in which translocation and outplanting occurs, a qualified botanical monitor shall conduct a complete inventory of the number of TYC stems present in the mitigation area. Surveys will be conducted when TYC is clearly identifiable. If the ratio of stems in the mitigation area is less than the ratio recorded immediately following translocation and outplanting activities, then the Conservancy will conduct additional outplanting of container-grown TYC plants to achieve at least the same ratio of TYC stems in the mitigation area. If deemed necessary based on monitoring results, the Conservancy will either relocate or enlarge the mitigation area to achieve mitigation goals.</p> <p>The TYC AMWG and CDFG are continuing to develop a standardized monitoring protocol for TYC. Therefore, in an effort to be consistent with the developed protocol, before project implementation, the Conservancy will coordinate with the TYC AMWG and CDFG to finalize the monitoring protocol for evaluating mitigation efforts.</p> | Prior to and post construction | Conservancy and its primary contractors for construction | | |

| Mitigation Measure | Implementation | | Completion of Implementation | |
|---|--|---|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| <p>Mitigation Measure 3.4-8A: Conduct Preconstruction Surveys for Nesting Special-Status Birds (Yellow Warbler, Willow Flycatcher, Waterfowl, and Long-Eared Owl), and Implement Buffers if Necessary.</p> <p>For construction activities that would occur in suitable habitat during the nesting season (April 1 through August 31), a qualified wildlife biologist will conduct focused surveys for active nest sites of the yellow warbler, willow flycatcher, waterfowl, and long-eared owl. The biologist will be able to identify Sierra Nevada bird species audibly and visually. The conduct of these surveys will conform to the following guidelines:</p> <ul style="list-style-type: none"> ▶ Yellow warbler, waterfowl, and long-eared owl. Focused surveys for yellow warbler, waterfowl, and long-eared owl nests will be conducted by a qualified wildlife biologist within 14 days before construction activities are initiated each construction season. The preconstruction survey for yellow warbler, waterfowl, and long-eared owl nests will be conducted using a nest-searching technique appropriate for the species. For yellow warbler, an appropriate technique will involve first conducting point counts in suitable riparian habitat to determine occupancy, followed by nest searching if the species is present. For long-eared owl, surveys will involve tape playback of recorded long-eared owl calls. ▶ Willow Flycatcher. For construction activities initiated in suitable breeding habitat for the willow flycatcher after May 31, a preconstruction survey for nesting willow flycatchers will be conducted each construction season. The survey will follow <i>A Willow Flycatcher Survey Protocol for California</i> (Bombay et al. 2003). The protocol requires a minimum of two survey visits to determine presence or absence of the willow flycatcher: one visit during survey period 2 (June 15–25) and one during either survey period 1 (June 1–14) or period 3 (June 26–July 15). <p>If active yellow warbler, willow flycatcher, or long-eared owl nests are located during the preconstruction surveys, the biologist will notify TRPA and CDFG. If a yellow warbler or willow flycatcher nest is located, construction will be avoided within 500 feet of the nest (or at a distance directed by CDFG) to avoid disturbance until the nest is no longer active based on monitoring. If an active long-eared owl nest is located, construction within 0.25 mile of the nest site (or at a distance directed by CDFG) will be delayed until the nest is no longer active based on monitoring.</p> <p>If active waterfowl nests are located during preconstruction surveys, the biologist will notify TRPA, and to the extent feasible, construction will be avoided within 500 feet of active nests.</p> | Prior to each construction season | Conservancy and its primary contractor for construction | | |
| <p>Mitigation Measure 3.4-8B: Conduct Preconstruction Surveys for Special-Status Bats, Avoid Removal of Important Roosts, and Implement a Limited Operating Period If Necessary.</p> <p>Bat surveys will be conducted by a qualified wildlife biologist within 14 days before any tree removal or clearing each construction season. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Potential roost sites identified will be monitored on two separate occasions for bat activity, using bat detectors to help identify species. Monitoring will begin 30 minutes before sunset and will last up to two hours at any potential roost identified. Removal of any significant roost locations discovered will be avoided to the extent feasible. If avoidance is not feasible, roost sites will not be disturbed by project activities until September 1 or later, when juveniles at maternity roosts are able to fly.</p> | Prior to each construction season | Conservancy and its primary contractor for construction | | |
| <p>3.7 Human Health/Risk of Upset</p> | | | | |
| <p>Mitigation Measure 3.7-2A: Prepare and Implement a Health and Safety Plan and Provide Qualified Oversight of Fill Removal Related to Excavation Activities at the Corporation Yard.</p> <ul style="list-style-type: none"> ▶ The Conservancy and their contractor(s) will develop and implement a health and safety plan (HASP) that clearly notifies all workers of the potential to encounter hazardous materials during demolition and construction activities. The HASP will identify proper handling and disposal procedures for contaminants expected to be on-site as well as maps and phone numbers for local hospitals and other emergency contacts. All protocols outlined in the HASP will be complied with throughout project implementation. ▶ Any stored hazardous materials present in the study area will be removed and disposed at appropriately permitted locations prior to construction. A qualified professional (e.g., geologist or engineer) will oversee fill excavation activities and abandoned UST tank removal at the Corporation Yard in order to properly identify any potentially contaminated soils that may be present. Excavation of the UST must comply with El Dorado County UST Ordinance No. 4332. If contaminated soils are found, implement Mitigation Measure 3.7-2b (Alt 1). ▶ UST tank removal will include measures that ensure the safe transport, and disposal methods. Remediation actions, if necessary, will be defined, in consultation with the EDCDEM, DTSC, and Lahontan Regional Water Quality Control Board (RWQCB), and implemented during construction. | From project design through construction | Conservancy and its primary contractors for engineering design and construction | | |

| Mitigation Measure | Implementation | | Completion of Implementation | |
|--|--|--|------------------------------|----------------|
| | Timing/Schedule | Responsibility | Action | Date Completed |
| <p>Mitigation Measure 3.7-2B: Notify Appropriate Federal, State, and Local Agencies if Contaminated Soils Are Identified, and Complete Recommended Remediation Activities.</p> <p>To reduce health hazards associated with potential exposure to hazardous substances, the Conservancy would implement the following measures if necessary:</p> <ul style="list-style-type: none"> ▶ The Conservancy and its contractor(s) will notify the appropriate federal, state, and local agencies if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Any contaminated areas will be cleaned up in accordance with recommendations made by the EDCDEM, the Lahontan RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies, as generally described above. ▶ The Conservancy will prepare a site plan for remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, and needed redistribution of clean fill material on the study area. The plan will include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. If contaminated groundwater is encountered during site excavation activities, the construction contractor will report the contamination to the appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The construction contractor will be required to comply with the plan and applicable federal, state, and local laws. The plan will outline measures for specific handling and reporting procedures for hazardous materials, and disposal of hazardous materials removed from the site at an appropriate off-site disposal facility. | From project design through construction | Conservancy and its primary contractors for engineering design and construction | | |
| 3.9 Geomorphology and Water Quality | | | | |
| <p>Mitigation Measure 3.9-2: Adaptively Manage Potential Flood Disturbance in the Interim Period after Construction.</p> <p>The Conservancy will develop and implement an adaptive management plan focused on the short-term water quality degradation that could result within the first five years after construction. The plan will identify specific data collection and monitoring protocols, describe decision-making processes and authorities, and list thresholds for corrective actions. The performance criteria for the corrective actions will focus on preventing initial flood damage or turbidity effects from becoming persistent, recurring, or chronic, whether the corrective action is needed at the initial damage site or at other locations that could be affected by channel response to the initial damage.</p> | From project construction through operations | Conservancy and its primary contractors for engineering design and construction. | | |
| <p>Mitigation Measure 3.9-7: Monitor and Adaptively Manage Delivery of Coarse Sediment to Cove East and Barton Beaches.</p> <p>During the period of channel adjustments following construction, and until the streambed profile attains a relatively continuous slope within the study area, the Conservancy will monitor the supply of coarse sediment entering the study area, deposition within the treated reaches, and beach-face erosion at least once a year. Specifically, the Conservancy will make observations of net deposition or scour during low-water conditions. If substantial coarse-sediment deposition is occurring within large portions of the study area or beach-face erosion has worsened, and coarse-sediment input from upstream has not decreased, the Conservancy will respond with site-specific adaptive management. The Conservancy will develop and implement an adaptive management plan that will review and evaluate monitoring data and project conditions and recommend follow-up actions. Such actions could include continued or revised monitoring, corrective actions or interventions, and documentation. If coarse-sediment supplementation to site beaches or the nearshore is recommended, the coarse sediment shall be similar in lithology, size, and shape to native sands; washed/free of fine sediments or contaminants; and obtained from a permitted borrow/quarry location.</p> | From project construction through operations | Conservancy and its primary contractors for engineering design and construction. | | |
| 3.18 Cumulative Impacts | | | | |
| <p>Mitigation Measure 3.18-C29: Implement an Interim Coordinated Adaptive Management Plan on the Upper Truckee River.</p> <p>The sponsors (landowners/funders) for all the foreseeable river restoration projects that would be constructed on the Upper Truckee River shall develop and implement an interim coordinated adaptive management plan focused on potential short-term water quality degradation that may result if unexpectedly large flood flows occur within the first five years after construction. The plan shall be jointly developed to address issues that cross project boundaries and look at the system as a whole. The plan shall be in force for the interim period of channel adjustment and initial flood vulnerability (i.e., at least five years but no more than ten years from the end of construction—potentially as long as needed to allow for expected natural channel adjustments).</p> <p>The plan shall identify specific data collection and monitoring protocols, describe decision-making processes and authorities, and advise on corrective actions. The performance criteria for the corrective actions shall focus on preventing damage or turbidity effects from becoming a persistent, recurring, or chronic source, whether the corrective action is needed at the initial damage site or at other location(s) that could be affected by channel response to the initial damage. The plan shall include a discussion of responsibilities for implementing corrective actions, with a starting assumption that each project sponsor would be financially responsible for implementing the plan within their project reach. However, it is possible that problems occurring in one reach may affect other reaches and that the group will decide, following review of monitoring data, that mitigation should be applied in a reach different from the one where the problems are initially observed to prevent future or chronic water quality effects.</p> | From project construction through operations | Conservancy and its primary contractors for engineering design and construction. | | |